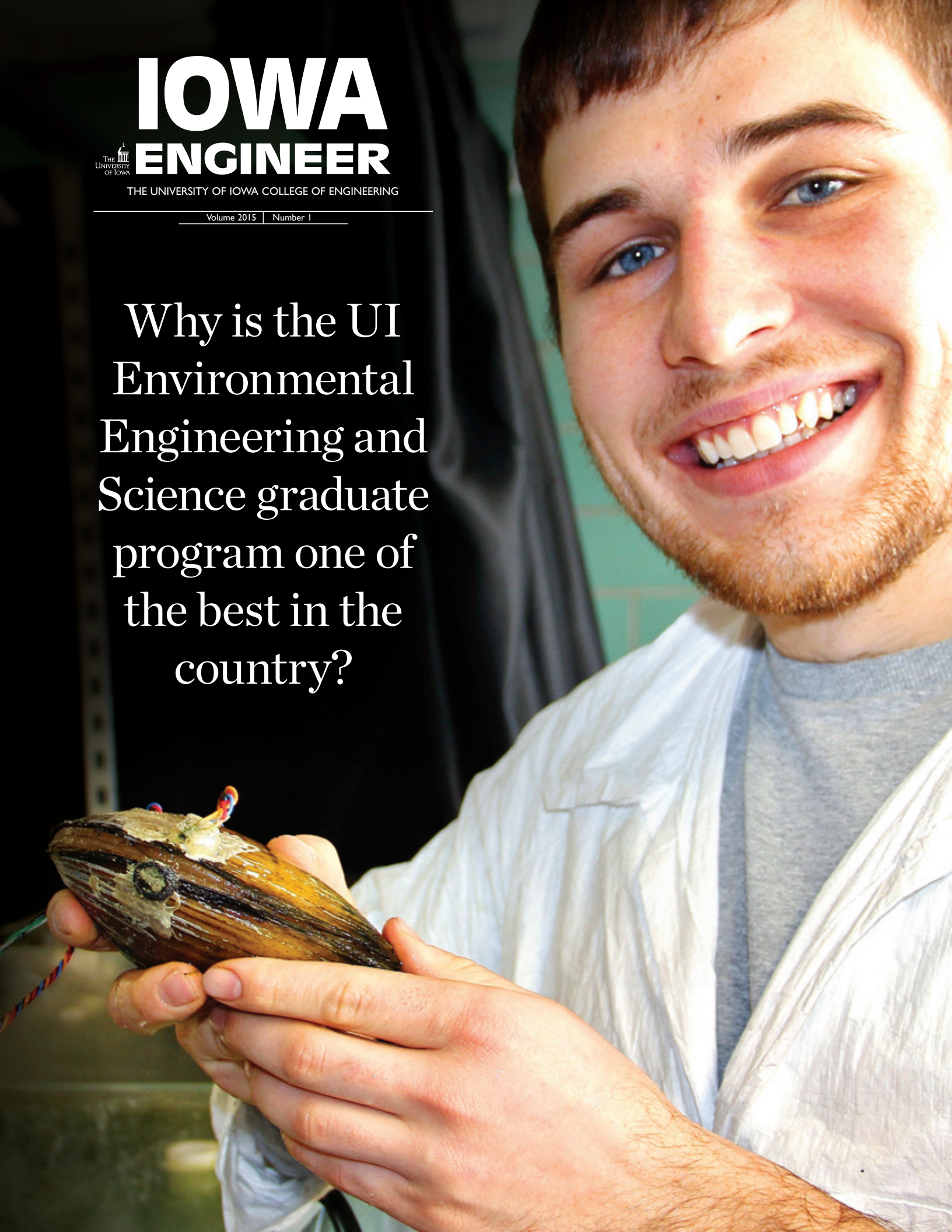


Why is the UI
Environmental
Engineering and
Science graduate
program one of
the best in the
country?



Educating Innovative Engineers

In this issue of the *Iowa Engineer*, you will find a great feature story about three of our alumni from three different generations who have each made an important impact to society through their innovative and entrepreneurial vision. As I read the story, I not only felt pride from the accomplishments of these three outstanding alumni, I couldn't help but to think about

all of the other alumni that I met who have equally impressive stories of the impact they have made in their careers. You are a very impressive group, and your accomplishments are an inspiration to our students and faculty alike.

Our faculty and staff continue to be inspired to be the best at educating engineers for the dynamic

and global careers of the 21st century. This inspiration has led us to create new global experiential educational opportunities, to develop more engaging teaching materials and methods for the classroom and beyond, and to create mentoring opportunities in which our current students can learn from our alumni. In addition, our faculty maintain a continuous dialog with alumni and friends from industry and the government to determine how engineering education should be continuously updated and enhanced. From these discussions we have concluded that we can best educate innovative engineers by not only providing a rigorous technical engineering education, but also developing students' understanding of key non-technical areas including leadership, global awareness, communications, teamwork, entrepreneurship, and creativity. With this continued approach, I am confident that we will educate innovative engineers for generations to come.

Alec Scranton
Dean of Engineering

Inside this issue of *Iowa Engineer*:

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Rankings recognize

TEXT BY GARY GALLUZZO

Everyone likes to be held in high regard by one's peers. And the Environmental Engineering and Science (EES) graduate program in the University of Iowa College of Engineering's Department of Civil and Environmental Engineering is no exception.

Based upon peer assessment by department chairs at civil and environmental engineering departments, the influential *U.S. News & World Report* 2016 Best Graduate School Rankings ranks the UI program as 8th-best among U.S. public colleges and universities in the engineering specialty category "Environmental/Environmental Health Engineering."

Among all public and private institutions, the UI program is ranked 15th-best — only a few places behind such notables as the University of California-Berkeley, CalTech and MIT, who rank 1st, 8th and 10th, respectively.



excellence in teaching and research

WHAT DID THE DEPARTMENT CHAIRS SEE?

First of all, the UI program is nationally known for outstanding research and leadership in a variety of fields, according to Michelle Scherer, professor and departmental executive officer in the Department of Civil and Environmental Engineering. She notes that the high-quality, high-impact research — funded by the EPA, USDA, NSF, NIH and other agencies — spans several areas including:

- Environmental chemistry and biotechnology.
- Pollutant fate, transport and remediation.
- Nutrient management.
- Environmental monitoring and sensing.
- Environmental nanotechnology.
- Water sustainability.

David Cwiertny, associate professor of civil and environmental engineering, points to water research.

Cwiertny, whose expertise includes environmental chemistry and water and wastewater treatment, recently published in the journal *Science* results of a study on the potential environmental impact of steroids and other pharmaceutical products. The study found that the anabolic steroid trenbolone acetate and other substances don't fully degrade in water as was once thought. Instead, trenbolone, a federally approved substance for weight gain in cattle, maintains enough residue to regenerate in the environment.

Regarding how his peers view EES, Cwiertny says: "Within our field, EES is looked to as a leader in water-related research, and I would broadly classify our collective strength in the area of sustainability of water resources."



This photo: Keri Hornbuckle and student Rachel Yucuis aboard the EPA research vessel Lake Guardian. Hornbuckle took students on a research expedition on Lake Michigan near Chicago to collect air and water samples. Photographer: Tim Schoon/University Relations

Cover photo: Lee Hauser with mussel. Photographer: Lindsay Marshall



Student Bailey Hadnott's summer co-op job for Cargill in Blair, Neb., gave her the opportunity to take on a number of different assignments as an environmental engineering project manager. Photographer: Joe Burns

The department chairs responsible for the *U.S. News* rankings may have also noticed that EES faculty and students are able to quickly apply their specific expertise to new environmental challenges.

“For example, an emerging area of research relates to the interconnectivity of food, energy and water systems in the United States and around the globe,” Cwierny says. “While this is a relatively new research priority in the U.S., several faculty in EES are well-equipped to contribute to the challenge of identifying more sustainable approaches for managing our food, energy and water resources.”

EES is also committed to studying very difficult and long-standing issues of environmental concern.

UI Professors Tim Mattes and Jerry Schnoor recently published research results showing a potentially cheap, effective and environmentally sound method for reducing PCB levels in PCB-contaminated soils and water.

PCBs were once widely used for such purposes as electrical cooling units and electric cable insulation before they were found to be health hazards. The U.S. Congress banned their manufacture in 1979, but PCBs are still produced inadvertently in some chemical manufacturing processes and are widely distributed throughout the environment.

In a paper published in the journal *Ecological Engineering*, Schnoor and Mattes showed that a species of switchgrass (*Panicum virgatum*) planted in the presence of an aerobic, PCB-oxidizing microorganism (LB400 bacteria) can remove nearly one-half of some PCB contaminants from soils.

Mattes says it was a surprise to find that the presence of switchgrass, once commonly found on the American prairie, appears to enhance the survival and activity of the bacteria. Schnoor says that while researchers often use plants to remove pollutants from soils — where they hope the proper bacteria develop on their own, it was a new twist to the story for the UI researchers to purposefully introduce bacteria at the time of planting.

Regarding the history of the EES program, Schnoor traces its lineage to Civil Engineering, one of the earliest UI engineering degrees and listed in a 1905 UI catalog. But EES actually grew out of a public health emphasis with an undergraduate track in Sanitary Engineering offered by faculty in the Colleges of Engineering, Medicine, Chemistry, and the Hygienic Laboratory in 1923. Master's degrees and doctorates in Sanitary Engineering were conferred beginning in 1927 and 1939, respectively.

“As one of the earliest programs in the country, it was considered highly successful with many graduates through 1970,” Schnoor says. “In 1970 or so, the title of the graduate degrees was changed to Environmental Engineering and administered by a separate graduate program. In the 1980s, the graduate program in Environmental Engineering was subsumed into the new Department of Civil and Environmental Engineering, and the graduate subtrack was renamed as Environmental Engineering and Science to reflect its interdisciplinary nature.

“The graduate program and subtrack in Environmental Engineering and Science has grown from five full-time faculty to nine today and represents one of the top ten public graduate programs in the country,” Schnoor says.

Another example of recent research drawing widespread attention to EES involves work by Craig Just, assistant professor of civil and environmental engineering. Just attaches wireless, electronic sensors to the shells of mussels living in Iowa rivers and streams. The idea is to learn how open or closed the shells happen to be at any one time, thereby indicating how much algae, bacteria and other organisms the mussels are drawing from the water to use as food. The more open the shells, the more food the mussels are taking in, and the cleaner the stream — especially when the mussels are present in large numbers.

Just hopes that one day his research also will help lead to much-needed habitat restoration for the mussels.

A combination of honors and long-running research activities have also helped raise EES visibility. For example:

- Professors Jerry Schnoor and Gene Parkin in June received high profile, national awards from the Association of Environmental Engineering and Science Professors for “sustained and outstanding contributions to environmental engineering education, research and practice” and for “a record of excellent teaching, advising, significant research achievements and an outstanding record of influence through mentoring,” respectively.
- Professor Keri Hornbuckle has led a major UI-centered PCB Iowa Superfund Research Project examining airborne PCBs in Chicago and at the Indiana Harbor and Ship Canal for nearly a decade.
- Cwiertny is founding editor and currently serves as editor-in-chief of a new journal, *Environmental Science: Water Research & Technology*, and, in addition, Professors Schnoor, Scherer, Hornbuckle and Richard Valentine have held editor or associate editor positions at premier scientific journals. Schnoor also served for more than a decade as editor-in-chief of *Environmental Science and Technology*, the premier journal in environmental engineering.
- Professors Scherer and Hornbuckle in July were appointed by the College of Engineering to Donald E. Bentley Professorships recognizing, in part, their extensively cited publications and international reputations.
- Professor Valentine was the focus of an environmental chemistry symposium held in his honor at the Fall 2014 American Chemical Society national meeting in San Francisco.
- Cwiertny and Hornbuckle hosted an international conference on emerging contaminants (EmCon 2014) at the UI last summer.

Hornbuckle, professor of civil and environmental engineering, says that the strength of the EES group involves understanding and reducing human and ecosystem exposure to toxic pollutants.

Best-known for their work on PCBs (polychlorinated biphenyls), Hornbuckle and her colleagues for more than 25 years have studied many aspects of these toxic chemicals in the Great Lakes environment, including emissions, fate and transport, decay and remediation, toxicology, and human/ecosystem exposure and risk. During the last decade, the Hornbuckle team was the first to report the widespread presence of a PCB unrelated to the historical production of Aroclors — toxic commercial mixtures that define many U.S. superfund cleanup sites.

Called PCB11, this compound was effectively unknown and had not been included in the many research studies of the prevalence and health hazards associated with PCBs. Hornbuckle, doctoral student Andres Martinez and post-doctoral fellow Dingfei Hu discovered the compound to be present throughout the air of the city of Chicago.

“Prior to our report, PCBs were assumed to be present in the environment as an exclusive result of the use of historical Aroclor use,” says Hornbuckle. “Our discovery showed that other sources of PCBs are out there.”

In addition to faculty research, EES students have brought a good measure of attention to the program by winning national awards, receiving NSF Graduate Fellowships and winning national paper awards for portions of their doctoral theses. Also, EES has a tremendous track record of placing graduate students into faculty positions.

Hunter Schroer, an EES program second-year doctoral student, says, “EES is a program where students are enabled to thrive. The friendly environment encourages collaboration and support, which allows us to do our best work.”

Says Scherer, “The EES group at the University of Iowa has been instrumental in identifying and addressing some of the major environmental issues of the last few decades, as well as training a cadre of young engineers and scientists to promote and engineer a sustainable environment. I have no doubt they will continue to remain highly regarded nationally and internationally.”



EES faculty; front row: Tim Mattes, Keri Hornbuckle, and Michelle Scherer; second row: Craig Just, Jerry Schnoor, Richard Valentine, and David Cwiertny; back row: Gene Parkin and Patrick O'Shaughnessy.

Photographer: Aneta Goska



*Ben Berkowitz and Professor
Richard Hurtig in the lab.*

RISKY BUSINESSES

TEXT BY JEAN FLORMAN

RISK-TAKERS, DREAMERS, EXTROVERTS. WORDS NOT OFTEN USED TO DESCRIBE ENGINEERS—AT LEAST NOT IN POPULAR MEDIA.

But for decades, the University of Iowa College of Engineering has turned out engineers who have blazed their own trails as entrepreneurs—the very definitions of risk-taking dreamers whose paths to success have been smoothed by their “people-person” skills, and who truly embrace the college’s “engineer...and something more” concept.

After 17 years in engineering sales for two prominent sanitary engineering process equipment manufacturing firms, Philip Parsons (BSCE 1966) took the entrepreneurial plunge.

“As a kid, I was always watching neighborhood construction projects and asking the workers to let me ‘borrow’ scrap and leftover lumber to enable me to build my projects, much to the chagrin of my parents,” Parsons says.

“In high school I enjoyed classes in math, science, and architecture,” he added. “During summers and holidays in college, I was working as a surveyor and then as a designer for a consulting firm in my hometown of Detroit. This gave me valuable experience in various civil engineering disciplines, and gave me insight about the nature of becoming an entrepreneur.”

Inspired by his engineer father and encouraged by Professor of Civil Engineering Wayne Paulson, Parsons decided to enter the new UI program in environmental engineering just as the federal Water Quality Act of 1965 created the Environmental Protection Agency and began providing substantial federal funds for environmental projects.

“I knew then that I wanted to participate in this engineering profession from the ground up,” Parsons says.

He adds that the spirit of trying to master something new is what entrepreneurship is all about.

But before he launched his own business, Parsons spent 16 years learning the ropes as an application engineer, research and design engineer, and technical equipment sales engineer for two of the largest suppliers of water and wastewater equipment in the Midwest.

In 1982, he decided to strike out on his own.

“I was very happy in each of my previous work experiences,” he says, “but we had furnished a lot of process equipment for municipalities and industries which made a lot of money for the companies where I worked. So I decided it was time to start my own firm to follow the entrepreneurial spirit that was within me. I wanted to convert some of my energy and prior successes in business to make money for myself in proportion to my effort. And I would like to think I was ambitious and liked to do things my own way without needing approval of management above me.

“Starting my own company was a way I could implement my ideas unfiltered by decision-making layers you typically find in corporations,” he says.

Parsons adds that being confident in your decisions doesn’t mean you don’t want to listen to trusted, experienced, intelligent people around you. In fact, successful entrepreneurs seek



“STARTING MY OWN COMPANY WAS A WAY I COULD IMPLEMENT MY IDEAS UNFILTERED BY DECISION-MAKING LAYERS YOU TYPICALLY FIND IN CORPORATIONS.”

PHILIP PARSONS (BSCE 1966)

out those individuals, which is precisely what he did when he “cherry-picked” nine of the best people from his former firm and convinced them to join him in his new venture, Parsons Engineered Products, Inc. most recently headquartered in St. Louis Park, MN.

“We tried on several different names for the new company for size,” Parsons says, “but the abbreviation, PEP, really said something about the drive and spirit of the company. Other names we considered—Parsons Environmental Engineering, or Parsons Institutional Sewerage Systems, or Parsons Outdoor Occupational Product. Well, really, those wouldn’t have worked so well.”

By the time he retired in Fall 2014 and sold the entire company to one of his business associates, Parsons employed some of the finest environmental engineers in the region. The company’s work continues to be recognized by its peers across the upper Midwest. Parsons says he enjoyed his work nearly every day of his career. More than 70 of his friends and colleagues traveled to Minneapolis from around the U.S. for his retirement party to recognize the achievements of his 48-year career in environmental engineering.

Since retirement, travel with his wife and family has been a great way to enjoy life, although he continues to be interested in environmental engineering management and projects for which he is committed to consult with the new owner for at least several more years.

“I’ve always been fortunate to have good people guide me,” he says, “and I hope to return the favor to others who can benefit from my many years of experience. I enjoy sharing ideas with others, including the new business owner, hoping its advice they can use.”

University of Iowa doctoral student Ben Berkowitz (BSE 2010, MS 2012) didn’t step into the entrepreneurial world from a successful career in the corporate world—he’s never been in the corporate world. Nevertheless, as a doctoral student in biomedical engineering, Berkowitz is already a deeply committed entrepreneur and the development director of Voxello, a start-up company headquartered in the University of Iowa Research Park. Voxello designs, develops, and manufactures innovative technology to augment the communication abilities of hospital patients who are severely incapacitated.

Voxello came to be from students in the Iowa Medical Innovation Group (IMIG). The students began collaborating to address the question of how to enhance patient care for people who could not verbalize their needs or condition. For years, Hurtig—who now serves as the Chief Science Officer

for the company—had worked with the UI Hospital and Clinics Hospital Assistive Devices Lab to design devices for the particular communication needs of individual patients. Now the company’s goal is to create technology that is adaptable to a range of patient communication modes, whether blinking, lip pressure, or small movements.

“We’ve developed a device called the noddle™,” Voxello Product Development Director Berkowitz says. “Patients can use it to call a nurse, turn on lights, and respond to questions. In every hospital there are patients who have the mental ability to communicate, but can’t because of physical impairment. This device will open a whole new way for these people to control their environment and express themselves to care providers and family members.”

About the size of a checkbook, the noddle™ can interface with iPads™ and dedicated speech generating devices. It distinguishes the difference, say, between involuntary blinking and consciously generated eye movements for communication. It can be used by virtually any adaptive switch and attaches to a hospital or home surface with a few zip ties or clamps. Voxello CEO Rives Bird estimates that the use of the patented device could avoid 350,000 adverse patient events per year—events such as falling out of bed when reaching for a nurse call switch—including 1,000 lives per month. That safety improvement also translates to \$3 billion in savings to patients, hospitals, and insurance companies.

“This technology takes into account all the factors that patients experience in a hospital and adjusts to their needs,” Berkowitz says. “A patient with a single capability can control multiple devices to call a nurse, communicate with visitors, or even administer their own pain control medicine.”

In January, the startup company signed an exclusive global licensing agreement with the UI Research Foundation and finished manufacturing the clinical prototype which will be used in hospital trials. The team has secured funding from a number of sources, including \$350,000 in nondilutive funding from the UI Research Foundation and State of Iowa Economic Development Authority, and \$250,000 in private investment.

“This is such a great experience,” says Berkowitz who passed his comprehensive exams while working full-time with the company. In December he also won the Grand Prize in the John Pappajohn Entrepreneurial Center’s Venture School Business Model Competition which features local entrepreneurs who describe how they have created successful business models and secured customers.

“There aren’t many grad students who have the opportunity to help start a tech company before they’ve graduated,”

Berkowitz says. “In a large corporation, I would just focus on one thing. Now I develop devices, yes, but I also am involved in fundraising, communication, managing teams of interns, and manufacturing. It’s a lot of work and a lot of fun.

“The University of Iowa has been a wonderful launchpad for me,” he adds, “and I am so fortunate to be able to work with these other researchers. The rate at which I’m learning and the variety of experiences I’m exposed to every day would be pretty hard to beat.”

While the entrepreneurial paths chosen by Ben Berkowitz and Phil Parsons remained clearly aligned with engineering, Kendra Wyatt (1997 BSE) traveled an entrepreneurial path that has taken her far from her industrial engineering roots.

Or so it seems.

Wyatt is the co-founder of New Birth Company, an Overland Park, KS startup that offers natural childbirth experiences for women and their families.

“I’ve always wanted to work in healthcare, not manufacturing,” Wyatt says, “and to focus on policy’s impact on how business works. Industrial engineers study decision making and, ultimately, the process of how policies are crafted and implemented. And the American healthcare system is one giant decision-making process that needs help.”

New Birth Company co-founders Kendra Wyatt and Catherine Gordon receiving their State of Kansas 2014 Women-Owned Business of the Year Award for Professional Service.



At Iowa, Wyatt began her studies in biomedical engineering, but soon discovered that in industrial engineering, she would be able to study anthropology, economics, and psychology.

“I loved that in IE, I could step back from what was happening in a particular context and ask, ‘What is it that this particular culture values?’”

She also took a Master’s level course in healthcare administration, and during a co-op at the University of Nebraska Medical Center, she worked with industrial engineers in charge of quality and performance improvement.

Following graduation, she began a steep trajectory of success as a “serial intrapreneur”—an employee in a large corporation who is responsible for taking risks to innovate and create a profitable end product—at Cerner Corporation, a multi-hundred-million-dollar company whose 15,000 employees provide technology solutions for healthcare systems worldwide. Shortly after starting at Cerner, Wyatt was appointed to be the assistant to the CEO, a unique opportunity that allowed her to observe how to lead a fast-growing company from Neal Patterson, “one of the smartest and more vibrant entrepreneurs on the planet.” And although she had long wanted to launch her own company, it wasn’t until a ten-day sabbatical in Rwanda with renowned anthropologist and physician Paul Farmer that Wyatt was “struck by possibilities.”

“I came back on fire,” she says, “and when I met the nurse-midwife who delivered my second child, I decided I really could make a difference in the world by helping to provide a dramatically different childbirth experience for other women.”


Wyatt decided to leave Cerner, and four years ago, she and the nurse-midwife, Catharine Gordon, teamed up to create New Birth Company, whose mission is to establish high-performing birth centers that consistently provide safe, natural childbirth care. Wyatt’s role is to tackle “all the complexities of budgeting, insurance, and regulatory requirements so the midwives can focus on catching the babies.” Two New Birth centers provide birthing and maternal and newborn care services to low-income women in the Kansas City area. In March, the company will reach a milestone of 1,000 births.

“We are social entrepreneurs,” Wyatt says. “We make money to spend it back in the community and try to disrupt the routine social and economic assumptions of what constitutes acceptable healthcare. We want women to seize the opportunity to change the aspects of healthcare that need to be changed.”

And as someone who has carved a unique path to success, she adds that her academic route through the College of Engineering was an excellent start because it exposed her to many different ideas and experiences.

“I would tell today’s engineering students to seize as many opportunities to learn different things as they can,” Wyatt says, “because you never know where you’re heading or how you’ll get there, and you need to take that intellectual energy and apply it to whatever you end up doing.

“And to the College of Engineering, I would add, ‘please keep rooting for the crazy ones.’”

A photograph of a student-built Baja SAE car, number 48, driving on a dirt track. The car is heavily splattered with mud and is navigating around orange traffic cones. The driver is visible in the cockpit, wearing a helmet and racing suit. The background shows a dusty, hazy environment with more cones and a person in the distance.

*UI Society of Automotive
Engineers 2014 National's Car
#48. Photo courtesy of
UIsae Baja*

Student orgs foster career success

TEXT BY SUSAN SHULLAW



Ready for a pop quiz?

Which of the following were highlighted in the first-ever UI College of Engineering Professional Development Awards Banquet earlier this year?

- (a) Building bridges
- (b) Launching rockets
- (c) Reviving traditions
- (d) Learning which fork to use

If you guessed “all of the above,” you’d be right. And if you guessed that student organizations in 2015 are about more than making friends and completing service projects, you’d be right about that as well.

“Student organizations enable our students to develop professional skills that reflect the needs of future employers,” says Kelli Delfosse, the college’s director of engineering professional development.

“Employers know our graduates receive an excellent engineering education and are ready for the technical aspects of any job,” she explains. “But companies also want employees who can communicate, problem solve, lead teams, be passionate about their work, function within a diverse community, and exhibit other ‘soft skills’ that compliment what they learn in the classroom. Student organizations offer tremendous opportunities to develop those skills.”

Today, the college hosts nearly 30 engineering-related student groups, including honors organizations, departmental and multi-disciplinary organizations, minority and professional organizations, and industry-specific organizations. Students may belong to one or more student organizations, and all are active in multiple ways, from attending regional and national conferences, to participating in technical competitions with other schools, to arranging guest speakers and industry site tours. Many take part in community engagement activities, especially with local K-12 schools, which has long been one of the college’s outreach priorities. Each organization has a faculty advisor and often maintains strong ties with industry partners as well.

Delfosse’s role is to keep student organizations informed about ways the college can support their efforts, whether it’s suggestions for growing membership, ideas for project-based fundraising, or making students aware of opportunities and resources. She credits the UI’s Center for Student Involvement & Leadership for additional guidance and support, including opportunities for engineering students to partner on cross-campus collaborations.

RECOGNIZING EXCELLENCE

Working with student organizations across the College of Engineering, Delfosse sees the big picture. But with so many organizations focused solely on their individual departments or industries, she began to realize that the big picture deserved broader recognition.

So Delfosse conceived an event that would recognize student organizations for their achievements, provide a professional development opportunity, and allow the entire college, across the disciplinary spectrum, to appreciate what individual student organizations had been accomplishing.

Thus was born the college’s First Annual Professional Development Awards Banquet, this year featuring an etiquette presentation, held in the Feller Club Room of Carver-Hawkeye Arena on April 23, 2015. As Delfosse told the 150 students, faculty, staff, and corporate partners who attended the banquet, “the purpose of tonight’s event is to foster a strong sense of pride in our college and encourage students to seek out experiences that make them great engineers and leaders.”



Allison Kindig, Grand Challenges Scholar, takes a temperature reading of the first iHawk solar cooker made in India. Photo by Kelli Delfosse

The evening began with an experiential lesson in dinner etiquette from Callista Gould, a popular speaker, writer, and founder of the Des Moines-based Culture and Manners Institute. Gould covered everything from table manners to networking tips, which are sure to be valued by students' future employers (and likely by their parents as well).

Delfosse and her colleagues then proceeded to recognize student organizations and individuals for their achievements. A few highlights:

- **Outstanding Student Organization for Service:** Continental Crossings, the UI student chapter of the Bridges to Prosperity, for assisting communities in rural Nicaragua in building footbridges to overcome the isolation experienced during the rainy season. The UI chapter was named the national Bridge Builder Team of the Year at the annual Bridges to Prosperity Bridge Builders Conference in Fall 2013.
- **Most Improved Student Organization:** American Institute of Aeronautics and Astronautics (AIAA) UI Student Chapter, for successfully raising more than \$2,000 to help design, build, test, and compete in a high-power rocket competition. The UI's AIAA also sponsored a visit to campus by former astronaut and AIAA National Executive Director, Sandra Magnus.
- **Outstanding Student Organization Collaboration:** American Society of Civil Engineers (ASCE) UI Student Chapter, which teamed with the UI Campus Activities Board to revive the Corn Monument on the UI Pentacrest, a treasured Homecoming tradition that began in 1919. The 2014 Corn Monument, at a height of 26 feet, was one of the tallest ever built.
- **Outstanding Established Student Organization:** American Institute of Chemical Engineers (AIChE) UI Student Chapter, for being recognized as an Outstanding Student Chapter by national AIChE for 10 consecutive years and being named National ChemE Jeopardy champions in 2013 and 2014, among other national and regional honors.

FOCUS ON THE FUTURE

By all accounts, the inaugural awards banquet was a major success, generating the college-wide visibility and pride that Delfosse was hoping to create. Now, she's looking ahead to the next big event; what she describes as the college's annual "student organization fair" and ice cream social sponsored by Deere & Company, to welcome incoming students and make them aware of what student organizations have to offer.

"We strongly encourage all students to get involved in one or more organizations," says Delfosse. "Organizations help students develop friendships, meet people with common interests and allow them to see early on what they can accomplish as an engineer. But more important, these organizations can get students in front of companies in their chosen industry and provide opportunities to build their resumes, which can directly lead to internships and full-time jobs after graduation. Here, student organizations are really all about career preparation."

And if that's not incentive enough, Delfosse looks forward to handing out even more awards at next year's banquet.



Above: Civil Engineering Students attend the ASCE Midwest Student Conference in Ames

*Below left: A crane lifts the corn monument into place on the Pentacrest for Homecoming 2014.
Photographer: Jackie Hartling Stolze*



2015 Professional Development Award Winners

- Outstanding Leader:** Stephanie Then, American Society of Civil Engineers (ASCE)
Outstanding Established Student Organization: American Institute of Chemical Engineering (AIChE)
Most Improved Student Organization: American Institute of Aeronautics and Astronautics (AIAA)
Most Promising New Member: Mitch Wantock, ASCE
Outstanding Research Assistant: Rai Tokuhisa
Outstanding Research Advisor: Hans Johnson, associate professor of electrical and computer engineering
Unsung Hero: Austin Hangartner, AIChE
Outstanding Student Organization for Service: Continental Crossings
Outstanding Student Organization Collaboration: American Society of Civil Engineers
Outstanding Intern/Co-op: Brandon Scholtes, Rockwell Collins
Outstanding Intern/Co-op Employer: DuPont Industrial Biosciences
Outstanding Community Partner: Emerson Process Management
Outstanding Student Organization Advisor: William Eichinger, ASCE

Retirements

The College of Engineering will miss those who retired on June 30, 2015.

Gene Parkin, professor civil and environmental engineering

Wilf Nixon, professor of civil and environmental engineering,

Mani Subramanian, professor of chemical and biochemical engineering and director of the Center for Biocatalysis and Bioprocessing

Diana Harris, Engineering Computer Systems

Susan Beckett, Engineering Computer Systems

Chris Brus, director of the Women in Science and Engineering program

Student Recognition

The College of Engineering has many stellar students as evidenced every year in the high caliber of students that enter each fall. The incoming class of 2011 (graduating class of 2015) was no exception. The average high school G.P.A. was 3.76, the average ACT score was 28. Twenty-two were high school class valedictorians, six were presidential scholars, seventy-six were Old Gold Scholars, five were National Merit Scholars, 186 were directly admitted into the UI Honors program. 22% of the class were first generation college students.

The University of Iowa College of Engineering definitely attracts the crème de la crème. Yet some students continue to rise to the top during their college careers and are recognized by the awards each receives. A few of the outstanding graduates are featured here.

Allison Kindig, senior majoring in industrial engineering, will be traveling to England this fall to study at Cambridge University thanks to a Gates Cambridge Scholarship. In April she was

honored with a prestigious Hancher-Finkbine Medallion. She is the 18th UI Engineering student to receive a Tau Beta Pi Fellowship. Last October, she reigned as Homecoming Queen. She was a Presidential Scholar, a Grand Challenges Scholar, an Iowa Center for Research by Undergraduates (ICRU) Fellow, Honors Student and a recipient of the 2015 Honors at Iowa Scholar Award. She served as an engineering student ambassador, and resident assistant in the Honors Communities. In her "spare time," she competes in Triathlons.

Christopher (C.J.) Winters is another star of the Class of 2015. He works as a lab assistant in the UI Carver College of Medicine Department of Internal Medicine under the guidance of Dr. Isabella Grumbach. This year he was named UI Student Employee of the Year then went on to be named the State of Iowa Student Employee of the year. He conducted an independent research project and is first author in an article submitted to a peer-reviewed journal. He was named a research ambassador by ICRU. Winters will continue his studies at the UI Carver College of Medicine.

Jocelyn Todd, senior majoring in biomedical engineering, was awarded a 2015 National Science Foundation Graduate Research Fellowship. She was captain of Iowa's DI Track and Cross Country teams. In 2014 she was named a Big Ten Distinguished Scholar. She is an ICRU Fellow studying in the UI Orthopaedics Biomechanics Laboratory.

Courtney Paulsen, received the Undergraduate Distinguished Student Leader Certificate at the annual Hancher-Finkbine Dinner. Paulsen is a senior double major in industrial engineering and dance with a minor in business administration. Last fall, Paulsen was selected to represent dance on an advisory

committee to form the NEXUS of Engineering and Art at the UI. She has played a formative role in this exciting initiative, which will create new collaborations among engineering and art students. She has also participated in the local chapter of the Institute of Industrial Engineers, serving as president as a sophomore and as the executive director of the board for two years. During her presidency, she led many initiatives focused on gaining new members and providing more opportunities for students. As the executive director of the board, Paulsen led a long term planning process to strengthen and clarify goals for the organization and collaborated with the Engineering Student Council to create a new Engineering Week Olympics event. Paulsen has also served as an engineering peer advisor, an engineering student ambassador, a leader and a captain for On Iowa! and the vice president of the undergraduate dance organization.

Katie Langenfeld of civil engineering won the paper presentation competition at the American Society of Civil Engineers Midwest Regional Student Conference held at Lakehead University.

Clint Matthews, junior majoring in civil engineering, received the 2015 ROTC Governor's Cup Award at a ceremony held April 14 at the Iowa State Capitol. Ten awards are presented annually by the governor of Iowa to the top ROTC students at seven universities in recognition of their leadership, academics and military achievement.

William Tollefson, senior majoring in biomedical engineering, received a 2015 Honors at Iowa Scholar Award. The award is presented to extraordinary graduating seniors.

Tianjiao Wang, graduate teaching assistant in biomedical engineering, received an Outstanding Teaching Assistant Award for 2015.

Engineering students recognized in the UI Student Employee of the Year competition included **Tim Tvedte** of biomedical engineering who received a certificate of distinction. **Kaleb Bozorgzadeh**, **Ian Brauer** and **Cody Geest** of electrical engineering were recognized with a Certificate of Appreciation.

Yin Yu, doctoral student in biomedical engineering and research assistant at the UI Center for Computer-Aided Design, received the Young Investigator Award at the 2015 World Congress on Osteoarthritis held April 30-May 3 at the Washington State Convention Center, Seattle, WA. The congress is hosted by the Osteoarthritis Research Society International (OARSI).

Kasra Zarei, sophomore majoring in biomedical engineering, was named to The Fellows Project, a program that challenges each Fellow to develop a knowledge of the self that will deepen their intellectual life, strength their engagement with the academic community and foster authenticity and confidence in their person and professional relationships. He was also one of four students selected by the ICRU to receive an Excellence in Undergraduate Research Award.

Scholarship Recipients

Gates Cambridge Scholar Allison Kindig, industrial engineering

Goldwater Scholarship: Kasra Zarei, biomedical engineering
Alexandra Bartlett, chemical engineering, Honorable Mention

Rhodes Dunlap First Year: Brett Austin, biomedical engineering
Harrison Freund, electrical engineering

Rhodes Dunlap Second**Year:**

Alec Archer, electrical engineering

Dylan Mann, biomedical engineering

Hanley Sayavong, chemical engineering

Rhodes Dunlap Collegiate Scholarship

Alexandra Bartlett, chemical engineering

NSF Graduate Fellowships:

Jocelyn Todd, biomedical engineering

Appointments

David Cwierny, associate professor of civil and environmental engineering and associate faculty research engineer, IIHR—Hydrosience & Engineering, was appointed editor-in-chief of *Environmental Science: Water Research & Technology*.

Keri Hornbuckle, professor of civil and environmental engineering and associate dean for academic programs, and **Michelle Scherer**, professor and departmental executive officer of civil and environmental engineering were appointed Donald E. Bently Professor of Engineering. Hornbuckle is an internationally recognized expert in the fate and transport of pollutants in the environment. Scherer is widely known for her ground-breaking work on redox reactions which occur at mineral-water interfaces.

Ching-Long Lin, professor of mechanical and industrial engineering, was appointed departmental executive officer of Mechanical and Industrial Engineering, effective July 1, 2015.

David Wilder, professor of biomedical engineering was inducted as an Honorary Member of the Delta Omega Honorary Society in Public Health.

Publications

Hans Johnson, associate professor of electrical and computer engineering and researcher at the Iowa Institute of Biomedical Imaging, is co-author of two books on ITK software. The first book provides a general introduction to ITK. The second book details the toolkit architecture that supports reading and writing of images to files, introduces the most commonly used filters found in ITK, discusses ITK's capabilities for performing image registration, reviews ITK's commonly used segmentation components, and describes ITK's statistics functionalities.

A paper co-authored by **Xiaodong Wu**, associate professor of electrical and computer engineering and researcher at the Iowa Institute of Biomedical Imaging, received the Moses and Sylvia Greenfield Paper Award July 13 at the annual meeting of American Association of Physicists in Medicine (AAPM) in Anaheim, CA. The paper, "Interstitial rotating shield brachytherapy for prostate cancer," was published in *Medical Physics*.

Grants and Contracts

James Ankrum, assistant professor of biomedical engineering and researcher at the UI Fraternal Order of Eagles Diabetes Research Center, received a \$75,000 one-year grant from the National Blood Foundation for "elucidating the role of FOXO3 in restoring potency of in vitro expanded mesenchymal stem cells."

Andres Martinez Araneda, adjunct assistant professor of civil and environmental engineering and assistant research scientist at IIHR—Hydrosience & Engineering, received a \$149,983 grant from the US Department of Defense, Strategic Environmental

Research and Development Program. Araneda will study a nanofiber-enabled, multi-target passive sampling device for determination of the freely-dissolved sediment pore water concentrations of organic contaminants.

Reinhard Beichel, associate professor of electrical and computer engineering, received a \$477,137 grant from the US Department of Health and Human Services, National Institutes of Health for "Anatomically derived airway models to facilitate computational toxicology models in mice."

George Constantinescu, associate professor of civil and environmental engineering and associate faculty research engineer at IIHR, received a \$206,333 grant from the Iowa Department of Transportation to study the effect of wind induced unsteady vortex shedding, diurnal temperature changes, and transit conditions on truss structures supporting large highway signs. He also received a \$23,967 grant from the National Science Foundation for a conference proposal: Eighth International Conference on Fluvial Hydraulics: River Flow 2016.

Soura Dasgupta, professor of electrical and computer engineering, received a \$20,458 contract from Raytheon BBN Technologies for "Arrays at commercial timescales."

Troy Lyons, director of engineering services at IIHR—Hydrosience & Engineering, received \$120,051 in funding for CHA Citizens Energy Group design/construction solutions. He also received a \$10,000 subcontract for review and recommendations for design of vortex drop shafts for the Metropolitan St. Louis Sewer District.

Ibrahim Ozbolat, assistant professor of mechanical and industrial engineering and co-director of the Advanced Manufacturing Technology

Group, was awarded a \$300,947 grant from the National Science Foundation for bioprinting of bone tissue into defect sites on animal models in surgery settings.

Edward Sander, assistant professor of biomedical engineering and researcher at the Iowa Institute of Biomedical Imaging, was selected by the National Science Foundation to receive a Faculty Early Career Development Award (CAREER). Sander will receive \$500,000 over a five-year period for his project "Directing epithelial-mesenchymal tissue self-structuring and remodeling with multi-scale mechanical interactions and principles of mechanobiology."

Michelle Scherer, Donald E. Bently Professor of Engineering, professor and departmental executive officer of civil and environmental engineering and researcher at IIHR—Hydrosience & Engineering, received a \$226,413 grant from the US Department of Defense, Strategic Environmental Research and Development Program. Scherer will study biologically mediated abiotic degradation of chlorinated ethenes.

Tom Schnell, associate professor of mechanical and industrial engineering and director of the Operator Performance Laboratory in the UI Center for Computer-Aided Design, received two contracts from Rockwell Collins, a \$9,311 contract to support NASA Control and Non-Payload Communications (CNBPC) Flights and a \$138,000 subcontract for "Advanced Technology Center Projects FY15." He received a \$76,920 subcontract for "Single pilot understand through distributed simulation (SPUDS). He also received a research contract from Wyle Aerospace Group to study spatial disorientation threat characterization for F-35 representative helmet-mounted display use in the flight environment.

Chris Schwarz, team leader, simulation software, and senior research engineer, National Advanced Driving Simulator (NADS), received a \$24,268 contract from Walt Disney Imagineering to conduct ride system specification for Delos Big Bird lateral acceleration testing.

Eric Tate, assistant research engineer at IIHR, received a \$33,563 grant from the Nature Conservancy. Tate will study the economic benefits of agricultural practices flood loss estimation for the Middle Cedar River Watershed.

Andrew Veit, National Advanced Driving Simulator received a contract from Hasselt University, Belgium for "NADS software and visual database modeling training." He received a \$5,336 contract from toXcel, LLC, for mini-Sim integration and training and a \$20,886 grant from the Idaho National Engineering Laboratory to provide a NADS MiniSim research driving simulator.

Gabriele Villarini, assistant professor of civil and environmental engineering and assistant faculty research engineer at IIHR—Hydrosience & Engineering, received a \$56,500 grant from Princeton University to study skillful predictions of seasonal hurricane frequency, track and landfall.

Larry Weber, Edwin B. Green Chair in Hydraulics, professor of civil and environmental engineering, and director of IIHR—Hydrosience & Engineering received a \$50,000 contract for Iowa League of Cities.

Nathan Young, IIHR—Hydrosience & Engineering received a \$120,000 contract from the Iowa Natural Heritage Foundation for "Development of enhanced floodplain mapping datasets from the Iowa statewide floodplain mapping program."

Weiyu Xu, assistant professor of electrical and computer engineering, received a \$64,094 grant for "Achieving full potential of massive MIMO Systems: theories and algorithms."

Patents

Tae-Hong Lim, In Situ Controlled Release Drug Delivery System, US Patent 20, 150, 140, 133, 2015.

Tae-Hong Lim, Joon B. Park, Jin Whan Lee, In situ controlled release drug delivery system, US patent 8,940,311, 2015

Cynthia Gazepis Templeman, Alec B. Scranton, Beth Ann Ficek, and Cynthia Hoppe (MS 2007, PhD 2010) were issued patent 8,993,042, 2015 for "method for determining the production parameters for a substrate coating process."

Presentations

Brennan Ayres, graduate student in mechanical and industrial engineering, presented a poster and conducted a lecture at the 2015 Healthcare Systems Process Improvement Conference and Reality," February 18-20, 2015, in Orlando, FL. His lecture was titled "Labor and Delivery Operating Room Traffic: Perceptions."

Ibrahim Ozbolat, assistant professor of mechanical and industrial engineering and co-director of the Advanced Manufacturing Technology Group in the UI Center for Computer-Aided Design, delivered the keynote address May 14-17 at the 2015 IEEE USA Annual Meeting & 26th Great Lakes Biomedical Conference in Milwaukee, WI.

1950's

Roger E. Nava (MS 1954) is head of ERINCA, an engineering and research company associated with LUZ University, Venezuela. Nava served as a visiting faculty member at the Massachusetts Institute of Technology, where he developed a mathematical model of Maracaibo Lake, Venezuela. He taught hydraulics for 34 years at the University of Zulia, Maracaibo, Venezuela, and worked 25 years as a consulting engineer and coordinator of an MIT and Zulia University research project on the Maracaibo Lake. Nava also served as former head of the Engineering School at LUZ, and is former president of the Petroleum Chamber of Venezuela.

1960's

Raymond J. Kearney (BSCE 1969) was inducted into the Iowa High School Swim Coaches Association Hall of Fame on February 14, 2015. <http://www.ihssca.org/hof.html>. He was inducted into the Clinton High School Athletic Hall of Fame on August 28, 2015. Ray started his 35-year career with the City of Los Angeles in 1969 as a civil engineer. He received his M.S. in sanitary engineering from Loyola University of Los Angeles in 1973 and is a member of Chi Epsilon and Tau Beta Pi. Ray was promoted to assistant director of the Bureau of Sanitation and was a national expert in wastewater management. He retired from the city in 2004. Then as vice president for EnerTech Environmental, Inc. he invented a new use for their wastewater treatment technology and received two U.S. patents. He re-retired in 2010.

1980's

Linda (Flach) McDaniel (BSE 1985) currently serves on the International Institute of Ammonia Refrigeration Board of Directors.

Rick Rohret (BSE 1988) has been promoted to mechanical design leader at Genesis Systems Group, Davenport, IA. Genesis Systems Group is a leading manufacturer of robotic welding and nondestructive inspection equipment.

Rich Thompson visited the College of Engineering May 1 to meet with his former advisors Jerry Schnoor, Allen S. Henry Chair in Engineering, professor of civil and environmental engineering, and co-director of the Center for Global and Regional Environmental Research, and Richard Valentine, professor of civil and environmental engineering.

1990's

Jack Feng (MS 1993, PhD 1995) has joined Commercial Vehicle Group, New Albany, OH, as vice president of operational excellence. The company is a world leader in the development, manufacturing and fulfillment of fully integrated system solutions for the commercial vehicle market including the heavy truck, construction, military, agriculture, and specialty industries.

Jeremy Fortier (BS 1997) is senior project manager — planning, design, and construction with Ascension Health.

Aaron Granquist (BS 1996, BSE 2000, MBA 2010) has been named project manager with HR Green.

Scott C. Hagen (BSE 1993) has been named the John P. Laborde Endowed Chair for Sea Grant Research and Technology Transfer.

Steve Maddocks (BSE 1991) has been promoted to director of operations-frozen for H. J. Heinz Company, Cedar Rapids, IA.

Ken Sigman (BSE 1997) has been appointed executive vice president, sales and marketing, for Anchor Glass Container Corporation, Tampa, FL.

Fitzgerald Steele, Jr. (BSE 1997, MS 2000) director of marketing at Integrated DNA Technologies, Inc., had the privilege of representing the Creative Corridor tech community at the FIRST Tech Meetup at the White House in Washington DC, held April 17. The gathering of 120 tech organizers, city and economic development officials, White House officials, and community activists was part of the TechHire initiative to address the current and future demand for high tech jobs. Through story-telling, passionate speeches, and small group working sessions they explored ways to start and grow more inclusive technical communities in the United States.

2000's

Allie Bartak (BSE 2009) has joined Stonyfield Farm as a commercialization project manager.

Gerald Beranek (BSE 2010) is president/owner of Generation Y WorX, North Liberty, IA.

Dana (Weir) Bruner (BSE 2007) is a water supply engineer with Burns & McDonnell, Kansas City, MO.

Abbie Bys (BSE 2007) is a product manager for Label Insight Incorporated.

Brad Conlan (BSE 2004) received the Dean's Award for Early Career Achievement on May 5. He delivered a special seminar on "The Value Generating Start-Up: A cash flow positive approach to innovation." Conlan is founder and CEO of Puregraft LLC, a leader

in the development and commercialization of closed, sterile fat grafting solutions. Puregraft technology can provide a surgeon with purified adipose tissue for reinjection. Conlan is also CEO of Kerastem Technologies, a regenerative medicine company dedicated to the hair field. Kerastem's core technology is currently in clinical development in the United States and Europe and is poised to address the billion-dollar hair market through innovative regenerative medicine products.

Michael DePierro (MS 2005, PhD 2006) has been invited to participate in the 2015 National Academy of Engineering's 2015 U.S. Frontiers of Engineering Symposium.

Toby Hunemuller (BSE 2002, MS 2010) was selected to receive a College of Engineering Dean's Award for Early Career Achievement. Hunemuller is chief of the Hydrologic Engineering Section at the Rock Island District Army Corps of Engineers, Rock Island, IL. He also has been recognized with Commanders Award for Civilian Service – Marseilles Dam Flood Recovery, 2013; Commanders Commendation- Recovery Assistance following the Great Midwest Flood of 2008-2009; Commanders Award for Civilian Service- 2008 Midwest Flood, Polk County Emergency Operations Center, 2008; and Achievement Medal for Civilian Service- Hurricane Ivan Response and Recovery Operations, 2004.

Jessie Huisinga (BSE 2004), assistant professor, Department of Physical Therapy and Rehabilitation Science and senior scientist, Landon Center on Aging at the University of Kansas Medical Center, was featured in a YouTube video on "MS and Carepartnership." The video can be viewed at <http://www.youtube.com/watch?v=T-ctopExDil&sns=fb>.

Jennifer (Mich) Leitsch (BSE 2000) is director of corporate responsibility with CBRE, Denver, CO.

Jeff Skrentner (BSE 2005, MS 2006) is a food safety engineer with Kraft Foods Group, Glenview, IL.

2010's

Austin Abolt (BSE 2015) is an electrical design engineer with General Electric, Burlington, IA.

Rocio Ayala (BSE 2015) is a process engineer with Kraft Food Groups, Davenport, IA.

Thomas Bang (BSE 2011) is a bridge engineer with McNary, Bergeron & Associates, Broomfield, CO.

Benjamin Behrendt (BSE 2012), student at the University of Virginia School of Law, has been named a summer associate with Kirkland & Ellis, LLP, Washington, D.C.

Joshua Behrendt (BSE 2014) is a mechanical foreman with BNSF Railway in Dallas, TX.

David Bein (BSE 2015) is a spacecraft mechanical design engineer with Lockheed Martin.

Taylor Best (BSE 2015) is an analyst with Accenture Federal Services.

Tony Bries (BSE 2015) is a software development engineer with Microsoft Corporation.

Jason Cardenas (BSE 2015) is a structural intern with Triarena, Madrid, Spain.

Andrew Christ (BSE 2015) is a wind energy intern with Alliant Energy, Cedar Rapids.

Rachel Cortez (BSE 2014) and **Mitchell Horras** (BSE 2014) are employed as staff engineers with Manhard Consulting.

Andre DeGroot (BSE 2015) has been accepted into the biomedical engineering graduate program at University of Texas – Austin.

Duke Detert (BSE 2015) is a real time operations/resource integration intern at MISO, Eagan, MN.

Alexander Drury (BSE 2010) is a quality engineer for DePuy Synthes in Monument, CO.

Flora Duff (BSE 2015) has been accepted into the Environmental Engineering graduate program at the University of Iowa.

Emma Fickel (BSE 2015) is an associate software developer at Pacific Source Health Plans.

Alexander Fischman (BSE 2015) is a software development engineer at Microsoft Corporation.

Edwardo Galvan (BSE 2015) is a supply chain associate at PepsiCo-Quaker Oats, Bridgeview, IL.

Jaclyn Gutman (BSE 2015) is a water staff engineer with HR Green, Inc., Cedar Rapids, IA.

Zach Henningsen (BSE 2015) is a manufacturing engineer with John Deere, Des Moines, IA.

Justin John (BSE 2015) is an implementation specialist with Intelligent Medical Objects, Northbrook, IL.

Parker Just (BSE 2015) is an engineering intern at Snyder & Associates, Inc., Ankeny, IA.

Alex Karwath (BSE 2015) is an associate industrial engineer with Hormel Foods Corporation, Austin, MN.

Haniya Khalid (BSE 2013) is a sales specialist with GE Healthcare UAE in Dubai.

John Kintz, E.I.T. (BSE 2015), is a civil engineering intern at STV, Inc.

Harland Klauke (BSE 2015) is a software engineer intern with Campus Bellhops, Chattanooga, TN.

Grant Lammers (BSE 2015) is a quality engineer EDP with Deere & Co., Quad Cities.

Jon Lewis (BSE 2015) is a lean manufacturing engineer with Parker Hannifin.

Jessica Litchfield (BSE 2015) is a biomedical engineer, assisting with new product development at Athena GTX, Des Moines.

Maggie Lundstrom (BSE 2014), has started her second rotation in the Rockwell Collins Rotation Program. After one year as an industrial engineer in logistics, she is now working in the procurement organization, located in Melbourne, FL.

Jack Machalek (BSE 2015) is a project engineer with Gilbane Building Company.

Patrick Maloney (BSE 2015) is an associate engineer with ComEd.

Coleman McCarthy (BSE 2015) is a TCF biomedical engineer with the U.S. Department of Veterans Affairs.

Alex McClure (BSE 2015) is a programmer analyst with Telligen.

Christopher Taylor McClendon, EIT (BSE 2012) is employed with Planners and Engineers Collaborative, Norcross, GA.

Elizabeth Mensing (BSE 2015) is a systems engineer with Fenwal, Inc., a Fresenius Kabi Company, in Lake Zurich, IL.

Aaron Mueller (BSE 2015) is a mechanical engineer with PRVN Consultants.

Aidan Murphy (BSE 2012) is an embedded software engineer with Deere & Co., Urbandale, IA.

Jeff Peters (BSE 2015) is a design engineer with Elgin Sweeper, Lemont, IL.

Sean Plenner (BSE 2012, MS 2014) is portfolio planner – US & Latin America: Real Estate Transactions & Projects for Shell Oil, Company, Houston, TX.

Benjamin Steger (BSE 2015) is a manufacturing engineer with St. Jude Medical, St. Paul, MN.

Stephanie Swanson (BSE 2011) has recently joined Hendrickson, Romeoville, IL, as a project engineer. In December she graduated with an MS degree in interdisciplinary engineering from Purdue University.

Adam Tarleton (BSE 2015) is a construction intern with F.H. Paschen, Chicago, IL.

Mitchell Vance (BSE 2013) has joined Lake Region Medical, Wheeling, IL, as a manufacturing engineer.

Dave Welch (BSE 2011) is an applications developer in medical image processing, Psychiatry Department, University of Iowa Hospitals and Clinics. He is also founder of Coder-Dojo, a coding club for kids in Iowa City.

Daniel Wenzelman (BSE 2015) is a system engineer with Siemens.

Dan Yocius (BSE 2015) is a research chemist with Stepan Company, Northfield, IL.

Zachary Yuhas (BSE 2013) earned an MS degree in finance from Olin Business School at Washington University, St. Louis. In May he joined Stifle, Nicolaus & Company as an investment banking analyst, public finance.

Wondwossen T. Anbessie (MS 2014) of Somerset, NJ, March 18, 2014.

Bassem F. Armaly (BSME 1963) of Rolla, MO, January 6, 2015.

Kenneth J. Baker (BSEE 1971) of Cedar Rapids, IA, December 21, 2014.

Wesley E. Benson (BSIE 1951) of Saint Marys, OH, October 21, 2014.

Maurice Harry Buresh (BSCE 1953) of Topeka, KS, January 10, 2015.

Ronald E. Butler (BSEE 1957) of Canyon Lake, CA, March 11, 2015.

Robert A. Carlsen (BSEE 1951) of Janesville, WI, March 24, 2015.

John V. Cole (BSCHE 1943) of Santa Ana, CA, January 16, 2014.

William B. Craig (BSCE 1939) of Naples, FL, December 21, 2014.

John P. Craven (PhD 1951) of Honolulu, HI, February 12, 2015.

Thomas B. Cross (BSE 1991) of Silsbee, TX, March 17, 2015.

Joseph P. Doyle (BSME 1963) of Swisher, IA, January 15, 2015.

Col. William S. Fulton, Jr. (BSIE 1972) of Fredericksburg, VA, March 14, 2015.

Richard H. Gill (MS 1952) of West Des Moines, IA, August 12, 2005.

Richard F. Holck (BSEE 1960) of Highland, IN, March 4, 2015.

Oden F. Jester, Jr. (BSME 1952) of Lindsborg, KS, August 15, 2013.

Raymond H. Jipp (BSCE 1943) of Islandia, NY, December 11, 2014.

Don B. Jones (MS 1954) of Oxnard, CA, December 3, 2014.

Carl F. Jordan, Jr. (BSEE 1951) of San Antonio, TX, November 19, 2012.

Lester E. Kane (BSIE 1959) of Surprise, AZ, January 15, 2015.

James J. Kauzlarich (BSME 1950) of Midlothian, VA, January 7, 2015.

John C. Kleitsch (MS 1969) of Ames, IA, May 14, 2015.

Stephan A. Konz (MS 1960) of Manhattan, KS, December 2, 2014.

Rudolph L. Leutziner (PhD 1976) of Independence, MO, January 30, 2015.

Donald M. Ludvigson (BSEE 1967) of Burnsville, MN, February 27, 2015.

Nathan A. Means (BSE 1996) of Cedar Rapids, IA, May 26, 2015.

John F. Meenan (BSCE 1949) of Rock Island, IL, December 27, 2014.

Edgar T. Moore (MS 1958) of Naperville, IL, December 22, 2014.

Leonard A. Meyer, Jr. (BSME 1943) of Los Altos, CA, February 2015.

Reed M. Morgan (BSE 2000) of North Liberty, IA, January 4, 2015.

Wendell C. Morrison (BSEE 1939) of Waukesha, WI, October 18, 2012.

Richard E. Munsterman (MS 1969) of Portage, MI, February 4, 2015.

Robert L. Murphy (BSME 1950) of Waterloo, IA, February 17, 2015.

William R. Nehlsen (BSCE 1950) of Santa Fe, NM, January 18, 2014.

Duane A. Nollisch (BSEE 1947) of Iowa City, IA, December 16, 2014.

Richard A. Paramore (BSME 1951) of Shawnee, KS, March 14, 2015.

Savo Price (BSEE 1961) of Los Altos, CA, August 25, 2011.

David L. Rickert (BSME 1983) of Bradenton, FL, February 27, 2015.

Maurice U. Roach (BSEE 1950) of Fairfield, IA, January 6, 2015.

Marvin F. Sedlacek (BSME 1953) of Surf City, NJ, January 15, 2015.

Eugene R. Smith (BSEE 1947) of Rocklin, CA, January 14, 2015.

Russell K. Soderquist (BSEE 1950) of Grand Junction, CO, April 17, 2015.

Darrell J. Ulch (BSME 1956) of Cedar Rapids, IA, April 1, 2015.

Adam J. Wiederholt (BSE 2006) of Milford, OH, March 31, 2015.

Robert D. Wilbanks (BSChE 1966) of Cedar Rapids, IA, December 12, 2014.

Darrell D. Wyrick (BSChE 1956) of Iowa City, IA, May 14, 2015.

Steven James Zarifis (BSChE 1981) of Waterloo, IA, November 29, 2014.



Building a Foundation for Giving

DARRELL WYRICK (BS 1956, MS 1957)

With two UI degrees in chemical engineering (BS 1956, MS 1957), Darrell D. Wyrick might have been expected to build a solid career as a chemical engineer. Instead, he built something of greater and more lasting value to his alma mater and those it serves.

In 1962, while living in Minneapolis and after spearheading a telephone solicitation campaign among UI alumni, Wyrick was tapped by UI President Virgil Hancher and UI Alumni Association Executive Director Loren Hickerson to take the helm of the nascent University of Iowa Foundation, which had been founded in 1956. Wyrick was the foundation's first full-time employee. During his long tenure as its leader (1962-1998), there were many "firsts" to come, from new campus buildings to billion-dollar campaigns.

Wyrick was deeply proud of his engineering degrees, and his loyalty and fundraising expertise benefitted the college in countless ways, from sharing the power of philanthropy with his fellow engineering graduates, to hiring the college's first development officer.

When Rick Miller was appointed dean of the college in 1992, one of his top priorities was to secure public and private funding for an expansion to the existing Engineering Building. Rich Wretman, a UI Foundation executive staff member who became the college's development officer shortly after Miller was hired, remembers Wyrick's valuable role in the facilities campaign.

"In the mid-1990s, the college formed an inaugural Development Committee, and Darrell was among its founding members," Wretman says. "That group evolved into the campaign committee that provided leadership for the very successful effort to expand and transform the existing facility into the Seamans Center for the Engineering Arts and Sciences. In every sense, Darrell was at the forefront of the campaign." Ultimately, the college raised more than \$11 million for the building project, including a \$3 million naming gift from engineering alumnus Gary Seamans (BSEE 1971) and his wife, Cammy.

"Darrell was very valuable to me personally in my role as the college's development officer, and in helping the college develop the effective and comprehensive fundraising program that continues to this day," Wretman continues. "He gave great advice, and he knew all of the college's most successful alumni. Using Darrell's name opened many doors along the way and gave me great credibility. He loved the College of Engineering and was always ready to move it forward."

Wyrick was inducted into the Distinguished Engineering Alumni Academy in 1996. He passed away in Iowa City on May 14, 2014, at the age of 81. For more information on his career, visit www.engineering.uiowa.edu/alumni-friends/honor-wall/distinguished-engineering-alumni-academy-members/darrell-d-wyrick.



Hats off to the Class of 2015

IOWA ENGINEER

The University of Iowa
College of Engineering
Office of the Dean
3100 Seamans Center
for the Engineering Arts and Sciences
Iowa City, Iowa 52242-1527

Phone: 319-335-5764
Fax: 319-335-6086
E-mail: iowa-engineer@uiowa.edu

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